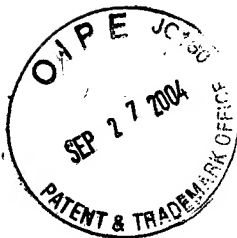


BHC
[40116/05901]

[A-68938] *7 fw*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



Inventor(s) : LUNGARO et al.
Serial No. : 09/588,109
Filing Date : May 31, 2000
Title : SECURE, ENCRYPTING PIN PAD
Group Art Unit : 2135
Examiner : Hosuk SONG

Mail Stop: Petition
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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By:

Date: September 21, 2004

[Signature]
Oleg F. Kaplun (Reg. No. 45,559)

TRANSMITTAL

Transmitted herewith is a Petition for Reinstatement of the Patent Application for filing
in the above-identified application. The Commissioner is hereby authorized to charge the
petition fee of \$130 and any additional fees to the Deposit Account of **Fay Kaplun & Marcin,**
LLP No. 50-1492. A copy of this paper is enclosed for that purpose.

Respectfully submitted,

Dated: September 21, 2004

[Signature]
Oleg F. Kaplun, Reg. No. 45,559

Fay Kaplun & Marcin, LLP
150 Broadway, Suite 702
New York, New York 10038



[40116/05901]

[A-68938]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Alexandria, VA 22313-1450

PETITION FOR REINSTATEMENT OF THE PATENT APPLICATION

This is in response to the Notice of Abandonment mailed on September 8, 2004.

The relevant facts are as follows:

1. An Office Action was mailed by the USPTO on January 16, 2004.
2. A Response to the Office Action was mailed to USPTO on April 16, 2004.

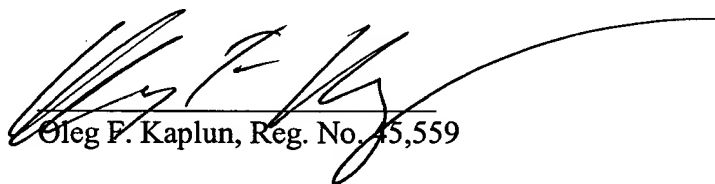
A copy of the Response is enclosed herewith. The Response included a Certificate of Mailing in accordance with 37 CFR § 1.8(a)(1)(i)(A) and as defined by MPEP § 512 evidencing the deposit of the Response with the U.S. Postal Service on April 16, 2004.
3. A Notice of Abandonment was mailed on September 8, 2004 indicating

that no response to the Office Action was received by the USPTO.

Thus, the Applicants respectfully submit that the response to the Office Action was timely filed and hereby petition the Commissioner to reinstate the above-identified application.

Respectfully submitted,

Dated: September 21, 2004



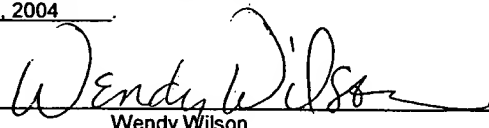
Oleg F. Kaplun, Reg. No. 45,559

Fay Kaplun & Marcin, LLP
150 Broadway, Suite 702
New York, New York 10038
Tel: (212) 619-6000
Fax: (212) 619-0276



PATENT
Attorney Docket No. A-68938/RMA/JML (467766-39)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: LUNGARO, et al. Serial No.: 09/588,109 Filing Date: 31 MAY 2000 For: A SECURE, ENCRYPTING PIN PAD	Examiner: SONG, HOSUK Group Art Unit: 2135 <u>CERTIFICATE OF MAILING</u> I hereby certify that this correspondence and its listed enclosures is being deposited with the United States Postal Service as First Class Mail addressed to Commissioner for Patents; P.O. Box 1450; Alexandria, VA 22313-1450 on April 16, 2004 Signed  Wendy Wilson
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AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Following is Applicants' response to the Office Action mailed 16 JANUARY 2004. A response is due 16 APRIL 2004, making this a timely response. Please amend the application as indicated on the following pages, and consider the remarks herein.

While Applicant believes that no further fees are due at this time, the Commissioner is authorized to charge any fees that may be due as a result of filing this amendment, including additional claims fees not already paid for, or other fees that have not been separately paid, to Deposit Account 50-2319 (Order No. A-68938/RMA/JML (467766-39)).

AMENDMENTS TO THE CLAIMS

1. (Cancelled)
2. (Currently Amended) The apparatus of claim 15 ~~[[1]]~~, wherein the pad comprises a touch pad.
3. (Currently Amended) The apparatus of claim 15 ~~[[2]]~~, wherein the touch pad comprises an N-wire-technology touch pad.
4. (Original) The apparatus of claim 2, wherein the touch pad comprises a four-wire-technology touch pad.
5. (Original) The apparatus of claim 2, wherein the touch pad comprises a seven-wire-technology touch pad.
6. (Currently Amended) The apparatus of claim 15 ~~[[4]]~~, wherein the pad comprises a touch screen.
7. (Currently Amended) The apparatus of claim 15 ~~[[4]]~~, wherein the pad comprises a pad for entering a personal identifier (PIN).

8. (Currently Amended) The apparatus of claim 15[[4]], wherein the encrypting circuit comprises

a CPU; and

a memory, coupled to the CPU and programmed to encrypt.

9. (Original) The apparatus of claim 8, wherein the CPU and programmed memory are the first CPU, programmable to encrypt the entered identifier, through which the identifier passes.

10. (Currently Amended) The apparatus of claim 15[[4]], wherein the encrypting circuit comprises

a microcontroller programmed to encrypt.

11. (Currently Amended) The apparatus of claim 15[[4]], wherein the encrypting circuit comprises

an application-specific integrated circuit (ASIC).

12. (Currently Amended) The apparatus of claim 15[[4]], ~~further comprising a housing enclosing the encrypting circuit and link and~~ wherein the housing is resistant to access.

13. (Original) The apparatus of claim 12, wherein the housing comprises housing resistant to tampering.

14. (Original) The apparatus of claim 12, wherein the housing comprises housing resistant to tapping.

15. (Currently Amended) ~~The apparatus of claim 12,~~ An apparatus for encrypting an identifier, the apparatus comprising:

a pad for entering an identifier;

a circuit, adjacent the pad, for encrypting the entered identifier;

a link, communicatively coupling the pad and the encrypting circuit; and
a housing enclosing the encrypting circuit and the link, the housing formed at least partially
wherein the housing comprises
housing at least partially of using chip-on-glass technology.

16. (Currently Amended) The apparatus of claim 15[[12]], wherein the ~~housing comprises~~
~~housing in which the encrypting circuit is embedded~~ in the housing.

17. (Currently Amended) The apparatus of claim 15[[12]], wherein the ~~housing comprises~~
~~housing in which the link and the encrypting circuit are embedded~~ in the housing.

18. (Original) An apparatus for encrypting an identifier, the apparatus comprising:
a pad, comprising one of a touch screen and an N-wire-technology touch pad, for entering a
personal identifier (PIN);
a circuit, adjacent the pad and comprising one of a programmed microcontroller and an ASIC, for
encrypting the entered identifier;
a link, communicatively coupling the pad and the encrypting circuit; and
a housing, resistant to access and at least partially of chip-on-glass technology, in which the link
and encrypting circuit are embedded.

19. (Currently Amended) A method for encrypting an identifier, the method comprising:
placing a
pad for entering an identifier,
a circuit for encrypting an identifier and
a link communicatively coupling the pad and the encrypting circuit
adjacent in an access-resistant housing formed at least partially using chip-on-glass technology;
entering a identifier on the pad;
communicating the identifier to the encrypting circuit; and
encrypting the identifier by means of the encrypting circuit.

20. (Currently Amended) The method of claim 19, further comprising ~~the step of~~
forwarding the encrypted identifier for verification.

Serial No.: 09/588,109
Filing Date: 31 MAY 2000

21 – 22. (Cancelled)

REMARKS

This Amendment and Response is submitted in response to the Office Action mailed 16 JANUARY 2004. Withdrawal of the rejection and reconsideration with an eye toward allowance is respectfully requested.

Claim Status

Claims 2-20 are pending after entry of the present amendment. Claims 1-22 stand rejected. Claims 1 and 21-22 are cancelled herein without prejudice or disclaimer towards presenting them in a related application. Claims 2-3, 6-8, 11-12, 15-17, and 19-20 are amended herein for technical clarity and/or proper dependency. A complete listing of all claims that are, or were in the application, along with an appropriate status identifier, is provided above in the section entitled "Amendments to the Claims". Markings are provided on claims amended in the present amendment.

Support for the above claim amendments can be found throughout the originally filed specification, drawings, and claims.

Claim Rejections – 35 U.S.C. §102

Claims 1, 2, 6-10, 12-14, 16-17, and 19-22 were rejected under 35 U.S.C. §102(e) as being anticipated by Bilger et. al. (U.S. Patent Number 6,317,835).

Applicant has cancelled claims 1 and 21-22. Claims 2, 6-10, 12-14 and 16-17 have been amended to depend from Claim 15, discussed below. Applicant has amended claim 19 to recite "chip on glass technology," which the Examiner concedes is not taught by Bilger (see Office Action, page 5). Claim 20 depends from and includes all limitations of amended claim 19.

Accordingly, Applicant submits that the 35 U.S.C. §102(e) rejection over Bilger is moot.

Claim Rejections – 35 U.S.C. §103

Claims 3-5 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bilger et. al. (U.S. Patent Number 6,317,835). Applicant has amended claims 3-5 to depend from and include all limitations of Applicant's amended claim 15 including "a housing enclosing the encrypting circuit and the link, the housing formed at least partially using chip-on-glass technology". Accordingly, Applicant submits that the rejection over Bilger is moot. Applicant further notes that the Examiner has taken Official Notice that four wire and seven wire technology touch pads are well known in the art. Applicant respectfully requests that, if the Examiner maintains any rejection in view of this Official Notice, that the Examiner provide documentary evidence to support the rejection and Notice.

Claim 11 was rejected under 35 U.S.C. §103(a) as being unpatentable over Bilger in view of Coli (U.S. Patent Number 5,452,355). Applicant has amended claim 11 to depend from and include all limitations of Applicant's Claim 15, discussed below. Accordingly, Applicant submits that the 35 U.S.C. §103(a) rejection over Bilger in view of Coli is moot.

Claim 15 was rejected under 35 U.S.C. §103(a) as being unpatentable over Bilger in view of Tsuji et. al. (U.S. Patent Number 5,821,622). Applicant respectfully submits that there is no proper motivation to combine the teachings of the references. Further, Applicant submits that the references, taken alone or in combination, fail to teach or disclose "a housing enclosing the encrypting circuit and the link, the housing formed at least partially using chip-on-glass technology".

Bilger is directed toward a PIN entry device (PED) including a microprocessor (see col. 2, lines 10-15). The microprocessor may operate in an encrypted mode whereby it accumulates several keystrokes without sending these to the application program. Instead, it waits for the ENTER key to be pressed, and then performs an encryption algorithm on accumulated inputs (see col. 2, lines 25-29). The Examiner concedes that Bilger does not disclose chip-on-glass technology (see Office Action, page 5).

Tsuji is directed toward a liquid crystal display device including a plurality of address wiring lines formed of an Mo-W alloy (see abstract). Tsuji discloses that "in the liquid crystal display device having the above-described structure, each address electrode pad and each data electrode pad are made of the same Mo-W alloy as that of the gate electrode, and therefore, for example, during the packaging of COG (chip on glass), the joint between these electrode pads and ICs used for image pick-up signal, connected thereto, is strengthened, thereby achieving a high reliability" (see col. 23, lines 60-67).

Applicant respectfully submits that there is not a proper motivation to combine the references. The Examiner suggests that the motivation would be because COG technology saves space since the display drivers that help turn screen's pixels on and off don't have to be housed in separate microchips (see Office Action, page 5). Further, the Examiner suggests that the motivation would be that COG reduces a mounting area and is better handling high speed or high frequency signals (see Office Action, page 5). The Examiner further states that the motivation would be that COG technology is cost effective over COB because much less IC's are required (see Office Action, page 5). Applicant respectfully submits that the advantages of COG technology described by the Examiner are not supported by any statements or disclosure in the cited art. Specifically, Applicant submits that Tsuji does not disclose these features of COG technology. Tsuji at most has disclosed that, during COG packaging, the joint between electrode pads made using a Mo-W alloy and ICs used for image pick-up signal is strengthened. Accordingly, Tsuji at most motivates the use of COG packaging to strengthen a joint between a Mo-W alloy electrode and an integrated circuit. Applicant respectfully submits that Tsuji does not motivate the use of COG technology for the formation of a housing to enclose a circuit for encrypting an identifier and a link between the circuit and a pad for entering the identifier, as recited in Applicant's independent claim 15. Accordingly, Applicant respectfully submits that proper motivation to combine the references is

lacking. "There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge cannot come from the applicant's invention itself" *In re Oetiker*, 24 USPQ2d 1443,1446 (CAFC 1992).

Further, Applicant respectfully submits that the references, taken separately or in combination, fail to disclose or suggest "a housing enclosing the encrypting circuit and the link, the housing formed at least partially using chip-on-glass technology". The Examiner concedes that Bilger does not disclose such a housing formed using chip-on-glass technology. Applicant further submits that Tsuji at most discloses a Mo-W alloy electrode bonded to an IC packaged using chip-on-glass technology. Tsuji does not disclose a housing as recited in Applicant's claim 15.

Accordingly, Applicant submits that Claim 15 is patentable over Bilger in view of Tsuji.

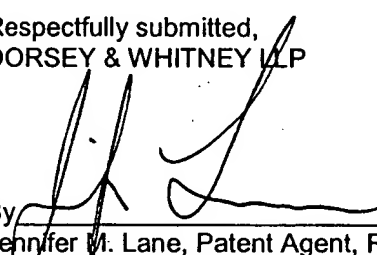
Claim 18 was rejected under 35 U.S.C. §103(a) as being unpatentable over Bilger in view of Coli and further in view of Tsuji. Claim 18 recites "a housing, resistant to access and at least partially of chip-on-glass technology, in which the link and encrypting circuit are embedded". As stated above with regard to claim 15, Applicant respectfully submits that Bilger and Tsuji fail to disclose, teach, or suggest this limitation. The Examiner concedes that Coli fails to disclose chip-on-glass technology.

Accordingly, Applicant respectfully submits that Claim 18 is patentable over Bilger in view of Coli in further view of Tsuji.

CONCLUSION

Prompt and favorable consideration of this Amendment and Response is respectfully requested. If the Examiner believes, for any reason, that personal communication will expedite prosecution of the application, the Examiner is invited to call the undersigned at (415) 781-1989.

Respectfully submitted,
DORSEY & WHITNEY LLP

By 
Jennifer W. Lane, Patent Agent, Reg. No. 51,916
for R. Michael ANANIAN, Reg. No. 35,050
Filed under 37 C.F.R. §1.34(a)

Four Embarcadero Center - Suite 3400
San Francisco, California 94111-4187
Tel.: (415) 781-1989
Fax: (415) 398-3249
SF-1137210